

AMENDMENTS TO THE SPECIFICATION

On page 27, lines 6 to 9, please delete the paragraph beginning, "HotStarTaq (commercially available from Qiagen, Hilden, Germany) . . ." to "As template was used mouse genomic DNA from NIH 3T3 cells.", and replace with the following new paragraph:

-- HotStarTaq® (commercially available from QIAGEN GmbH, Hilden, Germany) was used as a hot-start DNA polymerase. This polymerase can be obtained according to U.S. Patent No. 6,183,998, incorporated herein by reference, which discloses, in particular, that thermostable enzymes are reversibly modified in the presence of an aldehyde. The modified thermostable enzymes of that disclosure do not show significant increase in enzyme activity at 37°C., even when incubated for periods of an hour or more. On the other hand, enzymatic activity of the chemically modified enzymes is increased at least two-fold within thirty minutes when incubated at a more elevated temperature, i.e., above 50° C., preferably at a temperature of 75° C. to 100° C., and most preferably at 95° C. Such chemically modified enzymes may be employed in all applications involving manipulation of nucleic acids, such as amplification, ligation, exonucleolytic or endonucleolytic reactions, or nucleic acid topology changing enzymatic reactions, wherein the inactivated enzyme becomes reactivated by incubating the reaction mixture prior or as part of the intended enzymatic reaction at an elevated temperature. The preferred method of modification consists in crosslinking molecules of thermostable enzyme, e.g., Taq DNA polymerase, by reaction with formaldehyde. The formaldehyde-modified Taq DNA polymerase is useful for a hot-start PCR. Mouse genomic DNA from NIH 3T3 cells was used as a template. --